

demen who had aided the institute, and a discussion as to the next place of meeting, which ended in the selection of *Salisbury*, closed a very pleasant week in the ancient city of LINCOLN.

#### NOTES IN THE PROVINCES.

THE foundation stone of the new church of St. John the Evangelist, to be erected by subscription at Penge, near Sydenham, was laid on Tuesday, 1st inst., in presence of a large assemblage of subscribers and others. A bottle containing coins was placed in a cavity worked in the stone, and covered with a brass plate engraved with a record of the ceremony, over which was poured melted wax, to prevent corrosion. The church is to be erected at a small cost, and is, therefore, of plain design and economical proportions. The architects are Mr. Edwin Nash and Mr. John Nash Round. All piers, arches, jambs, and angles, internally as well as externally, are to be built in dressed freestone, instead of in brickwork stuccoed over in imitation of stone. The church will provide accommodation for 500 upon the floor, and no galleries will be erected. There will be a tower and spire 140 feet high. —The foundation stone of the parochial schools of Christ Church, Ramsgate, was laid on the 4th inst., by the Rev. Edward Hoare, A.M., the incumbent, in presence of a large number of friends. The schools are to be erected from the design of Mr. W. E. Smith, of Ramsgate, and to be in the Early English style. The exterior of the front will be of Kentish rag, random dressed, with all the dressings of Caen stone; the gables coped throughout with each stone laid in drip. The bell turret will be on the crown of the gable, and carried up from the surface of the ground to the height of 53 feet. The roof will be open inside, with all the timbers framed in panels, and plastered between the timbers. There will be sufficient accommodation for 450 children. The cost of the whole undertaking will be about £7501., including the purchase of the house for the master, and the site. —The new Infantry barracks at Portsea, are far advanced towards completion. The main building is ready for the asphalt roof. The flooring in the building for the common soldiers will be of asphalt, on iron-girders. Messrs. Locke and Nesham are the successors to Messrs. Burton, in the completion of this work. The officers, in a regiment of 1,000 (about 36 it is said), will here have ample accommodation, besides a suit of apartments for the commandant. —The Southsea esplanade was to be opened to the public on Tuesday. The road at the end of Jubilee-terrace, has been considerably widened, and the sharp turning sloped off gradually, and the road otherwise improved. —The Southampton Improvement Commissioners have announced their intention to elect a surveyor by 16th inst., with a salary of £201., in place of two as heretofore, with salaries of 80l. and 100l. —The new Roman Chapel at Salisbury, will be opened, it is expected, in course of a week or two. —The Church of England Cemetery, at Birmingham, was to be consecrated on Tuesday. The church is in the perpendicular style, with a tower and spire, a nave and chancel. The nave will be formed by the introduction of an ornamental open stone screen at the entrance, which, while separating that portion of the building destined for the burial service from that which will be constantly open to the people, will be kept so low as not to interfere with the proportions of the interior. The nave has an open roof of dark stained wood, with the spaces between the rafters painted of a deep ultramarine blue. Ranges of carved seats are placed on each side for those who attend the burial service, and in the centre of the nave will be an ornamental stand for the bier, whence, by means of Bramah's hydraulic machine, the coffins will be let down to the vaults below, and by a subterranean passage conveyed to the circular catacombs. The chancel is of ample dimensions, with an east window of three lights, to be filled with stained glass, presented by Messrs. Chance, Brothers,

and to be executed at their works. The floor is to be laid with encaustic tiles, while that of the nave will be in plain chequered squares. The tower is formed at the base by three massive archways, intended as a porch for the hearers. The cloisters are entirely cut off from the body of the chapel, and will be 150 feet in length, with a long range of windows in the western front, and blank recesses for the reception of monuments on the other. The windows are to be filled in their entire length with memorials in stained glass. The double circular range of catacombs in front, yet to be erected, originated in the architects seizing on one of the chief blemishes of the site, once a large sand-pit; forming the pit into a regular circle, and constructing two ranges of catacombs in the banks, faced with rough battlemented stone-work. These, when seen from a distance, will form, as it were, a basement to the main building, crowning the summit of the hill.

#### VENTILATING BILLIARD-ROOMS.

SIR,—If your correspondent has his billiard-room to build, he will ventilate it most effectually by carrying up the flue from the fire-place in a 9-inch metal tube, commencing at the level of the ceiling, and encasing this with brick-work, taking care to leave between the tube and the brickwork a sectional area of about 200 inches to form the air or ventilating flue.

This air-flue should open into a space above the ceiling of the room, which should be provided with apertures round the cornice, or from roses, at least equivalent to the area of the flue. The products from the combustion of the gas should likewise be conducted into this flue, which should also be surmounted by a windguard, of any form, adapted to take advantage of the movement of the external air, to assist the upward current. The smoke-flue should pass through and surmount this wind-guard.

To supply the place of the air taken out through the ventilating-flue, a chamber should be formed at the back of the grate, into which the external air should be conducted, and emitted through perforations in the front. A current of pure air of a modified temperature will by this means be drawn into the apartment, which will be found sufficient for winter ventilation. If artificial ventilation is required for summer, an "Arnot," or other slow burning stove, should be placed in the recess in lieu of the open grate. This, if lighted in the morning, would keep alight, and rarify the shaft throughout the day.

A pair of folding or sliding doors should be provided, to close the opening, to prevent the stove from heating the apartment.

The pure air should be admitted into the room through the top and under part of the skirting, properly arranged for that purpose.—care being taken to make the internal openings many times larger than the external aperture, in order to decrease the rapidity of the current of air entering the apartment.

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#### SANITARY REFORM IN SOUTHWARK.

A meeting has been held in the Parochial School-house, Borough-road, chiefly of gentlemen connected with the medical profession, to protest against the general evil (notwithstanding the professional good) arising from the opening of gully holes in the midst of densely populated districts: when a series of details was entered into, which would certainly have astonished the old lady who derived so much benefit from the genial breezes emanating from a gully hole opposite her dwelling. Resolutions in accordance with the disinterested objects of the meeting were passed with a single dissentient, a young gentleman, probably a relative of the old lady aforesaid, in which resolutions, while directing attention to a substitute for gullyholes already suggested in THE BUILDER, namely, columns in the streets to carry up the effluvia above the level of the chimneys—the medical men and others present merely protested against the continuance of old gully holes, or the opening of new, and requested that the Metropolitan Sewers Commission would put a stop to the nuisance.

#### NEW BOOKS.

*The Book of South Wales, the Bristol Channel, Monmouthshire, &c.: a Companion and Guide to the Southern Division of the Principality.* By CHAS. FREDERICK CLIFFE. Second edition.—Hamilton and Co., Paternoster-row.

As many of our readers will be in Swansea this week, attending the meeting of the British Association for the advancement of science, and may feel disposed to see something of Wales before returning to their several homes, we cannot do better than point their attention to Mr. Cliffe's very nice little book, which has just reached a second edition. This is a very great advance on the majority of local guide-books; it is pleasing and attractive, as well as correct, and is adorned with maps and numerous wood engravings. Mr. Cliffe has paid considerable attention to the antiquities of the places named, and is always ready with a remark tending to induce their preservation. The following notes of Merthyr will be found interesting, and will serve as a specimen of the author's style.

"The town, which mainly consists of workmen's houses, is of an irregular form, and lies in the midst of a group of bleak mountains: Downland occupies the upper part, near the edge of a table-land, and is approached by a long street stretching, for considerably more than a mile, up a steep ascent beyond the Pen-y-darren works. This narrow valley is flanked up to a great extent by enormous black banks of cinders, &c., compared with which the largest railway embankments are mere pigmies. Additions are of course constantly being made to these banks, and it appears to a looker-on a hazardous operation to bring a horse and tram close to the edge of the lofty ends or 'tips' for the purpose of shooting the contents over the precipice. As the 'tips' in progress are formed of hot cinders, they are on fire from nearly top to bottom—glow like lava. Sprinkles of hot water wash the bases of these gloomy banks. The scene is strange and impressive in broad day-light, but when viewed at night it is wild beyond conception. Darkness is palpable. The mind aids the reality—gives vastness and sublimity to a picture lighted up by a thousand fires. The vivid glow and roaring of the blast furnaces near at hand—the lurid light of distant works—the clanking of hammers and rolling mills, the confused din of massive machinery—the burning headlands—the coke hearths, now, if the night be stormy, bursting into sheets of flame, now wrapt in vast and impenetrable clouds of smoke—the wild figures of the workmen, the actors in this apparently infernal scene—all combine to impress the mind of the spectator very powerfully.

"A sketch of the processes carried on in the works would involve much dry technical detail. Merthyr is one of the great seats of the *bar iron* trade; and so extensive are the rolling mills, of late years almost exclusively occupied in the production of railway bars, that it has been found necessary to import a quantity of pig iron, chiefly from Scotland, to supply the demand, as well as large quantities of iron ore of various qualities. The exports at Cardiff afford an idea of the extent of the iron trade; but the quantity of iron produced is of course much larger. The chief firms sometimes accumulate large stocks, which they work up when times are very prosperous. The make of blast furnaces varies greatly according to circumstances, and according to the quality of iron produced. Thus a furnace that will make 120 tons of forge iron, is not capable of producing more than 65 tons of foundry iron. The average make of pigs at Downland, where no foundry is made, amounts, we believe, to between 80,000 and 87,000 tons of pig iron per annum: the average make of pigs at Cyfarthfa and Hirwaun somewhat exceeds 60,000 tons. The strata of coal are of excellent quality, accompanied by parallel veins of argillaceous iron ore, which penetrate the mountains to a great depth, and yield upon an average about thirty-five parts of metal out of 100: the mines are worked by levels. There is no black band here.

"In the spring of 1847, the rate of wages was nearly 40 per cent. higher than it was two years previously, owing to the advance in the

been the ancient well, in which were found, some years ago, three church bells and some bars of iron. A well, still in use, is a great curiosity, on account of its vast diameter. Some fresh discoveries have recently been made here.